

CLAIMS

What is claimed is:

1. A protective case for storing an information storage disc, said protective case comprising:

a base member having:

a generally rectangular lower panel;

a generally perimetric wall adjacent the outer edges of said lower panel, said perimetric wall being generally perpendicular to and unitary with said bottom panel; and

a pair of hinge alcoves positioned at adjacent corners of the bottom panel and at opposite ends of a rear portion of the perimetric wall, each hinge alcove having a first pivot element that is axially aligned with the first pivot element of the other hinge alcove, each hinge alcove being recessed from an adjacent outer edge of said lower panel that is perpendicular to said rear portion of the perimetric wall an amount that is at least five times the average thickness of said perimetric wall;

a lid member having:

a generally rectangular upper panel;

top and bottom lateral walls adjacent top and bottom outer edges of said upper panel, said lateral walls being generally perpendicular to and unitary with said upper panel;

a pair of hinge arms positioned at adjacent corners along a rear edge thereof, each hinge arm having a second pivot element that is axially aligned the second pivot element of the other hinge arm, the second pivot element of each of said hinge arms engaging the first pivot element of one of the hinge alcoves so as to hingeably interconnect said lid member to said base member, each hinge arm being unitary with said upper panel, having a width measured along an axis of pivot alignment that is about equal to the amount that each hinge alcove is recessed, each hinge arm being solid from side to side through said axis of pivot alignment, and each hinge arm fitting within a hinge recess when said lid member is closed over said base member.

2. The protective case of claim 1, wherein each hinge alcove is recessed from an adjacent outer edge of said lower panel, that is perpendicular to said rear portion of the perimetric wall, an amount that is about ten times the average thickness of said perimetric wall.
3. The protective case of claim 1, which further comprises a media tray that snaps into place within said base member.
4. The protective case of claim 3, wherein said media tray is hingeably connected to said base member between said pair of hinge alcoves.
5. The protective case of claim 3, wherein said media tray has a hub which has a height sufficient to centrally support said upper panel so that it is less easily deformed to the point of cracking.
6. The protective case of claim 3, wherein said media tray has a circular protector ring, which surrounds the disc storage space and has a height sufficient to support said upper panel so that it is less easily deformed to the point of cracking.
7. The protective case of claim 1, wherein each of said first hinge elements is an aperture that engages one of said second hinge elements, each of said second hinge elements being a stud.
8. The protective case of claim 1, wherein said perimetric wall overlaps said top and bottom lateral walls.
9. The protective case of claim 1, wherein said media tray includes a plurality of lid member support posts that support the rear edge of the lid member when the latter is closed over the base member.

10. A protective case for storing an information storage disc, said protective case comprising:

a base member injection molded from polymeric material as a single piece, comprising intersecting panels of generally uniform standard thickness, and having a pair of hinge alcoves which are positioned at adjacent corners along a lower rear edge thereof, each alcove inset from a top or bottom edge of said base member by a distance that is at least five times the thickness of the intersecting panels;

a lid member molded as a single piece, having an upper rear edge, formed predominantly of intersecting panels of said generally uniform standard thickness, in addition to a pair of hinge arms positioned at opposite ends of said upper rear edge, each hinge arm pivotally connected to an alcove of said base member along a pivotal axis passing through both alcoves, and each hinge arm being solid from side to side through the pivotal axis, and having a width, measured along said pivotal axis, that is about equal to the amount that each hinge alcove is recessed from a top or bottom edge; and

a media tray which snaps into said base member.

11. The protective case of claim 10, wherein each hinge alcove is recessed from a top or bottom edge of said base member, an amount that is about ten times said uniform standard thickness.

12. The protective case of claim 10, wherein said media tray is hingeably connected to said base member between said pair of hinge alcoves.

13. The protective case of claim 10, wherein said media tray has a hub which has a height sufficient to centrally support said upper panel so that it is less easily deformed to the point of cracking.

14. The protective case of claim 10, wherein said media tray has a circular protector ring, which surrounds the disc storage space and has a height sufficient to support said

upper panel so that is less easily deformed to the point of cracking.

15. The protective case of claim 10, wherein said lid member is hingeably connected to said base member via a pair of spaced-apart studs located on one member, each of which engages one of a pair of spaced-apart apertures located in the other member.

16. The protective case of claim 10, wherein:

certain intersecting panels of said base member form a generally perimetric wall adjacent the outer edges thereof, to wit, said rear edge, top edge, bottom edge and a front edge;

certain intersecting panels of said lid member form lateral top and bottom walls;
and

when said lid member is closed over said base member, said perimetric wall overlaps said lateral top and bottom walls.

17. The protective case of claim 10, wherein said polymeric material is optically transparent polystyrene.

18. The protective case of claim 10, wherein said media tray includes a plurality of lid member support posts that support the rear edge of the lid member when the latter is closed over the base member.

19. The protective case of claim 10, wherein each hinge arm is of composite construction having a central layer sandwiched between top and bottom layers of a resilient polymeric compound which are added during a subsequent injection molding step.

20. The protective case of claim 10, wherein each hinge arm is of a thickness that is substantially less than the thickness of the protective case.

21. A protective case of clam-shell design for storing an information storage disc, said protective case comprising:

a base member having a pair of spaced-apart hinge alcoves along a rear edge thereof;

a unitary lid member, having a pair of spaced-apart hinge arms, which are hingeably connected to said base member through a pivotal axis passing through said pair of hinge alcoves; and

a media tray which snaps into said base member having a hub which releaseably holds the information storage disc and is of sufficient height to provide support for said lid member, so that a tendency of said lid member to deflect and crack, when subjected to downward pressure, is reduced.

22. The protective case of claim 21, wherein each hinge arm is solid from side to side through the pivotal axis.

23. The protective case of claim 21 wherein the width of each hinge arm and each hinge alcove, taken along the pivotal axis, is about five percent of the height of the case.

24. The protective case of claim 21, wherein the width of each hinge arm and each hinge alcove, taken along the pivotal axis, is at least five percent of the height of the case.

25. The protective case of claim 21, wherein said base member is equipped with a perimetric wall, said lid member is equipped with top and bottom lateral walls, and said lateral walls overlap portions of said perimetric wall when the case is closed.

26. The protective case of claim 21, wherein said media tray is hingeably connected to said base member between said pair of hinge alcoves.

27. The protective case of claim 21, wherein said lid member is hingeably connected to said base member via a pair of spaced-apart studs located on one member, each of which engages one of a pair of spaced-apart apertures located in the other member.

28. The protective case of claim 21, wherein said media tray includes a plurality of lid member support posts that support the rear edge of the lid member when the latter is closed over the base member.